The System Itself

Our first system is Half Peak, which actually is nothing more than Alembert with a single, very helpful modification added: the half-peak mechanism.

The Alembert formula is a pearl of simplicity: every time you win, you decrease your bet by one unit; every time you lose, you increase your bet by one unit. You start anywhere. Pick a number you think is lucky, say 11, and make that your opening bet. If the first bet wins, the second bet is 10. If the first bet loses, the second bet is 12. Then just repeat the process over and over again to infinity.

Consider what happens with every pair of wins and losses. If you bet 11 and lose, then bet 12 and win, you've shelled out $11 + 12 = 23$ but taken in $2 \times 12 = 24$, a profit of exactly one unit. Likewise if you win the first bet, then lose the second, you've rolled out $11 + 10 = 21$, but of course you won $2 \times 11 = 22$ on the first bet, so again the profit is exactly one unit.

That's where the system's profitability comes from. Every pair of wins and losses generates exactly one unit. It doesn't matter if the pair is 11 and 12, 48 and 49, or 16,380 and 16,381, they all generate the same one unit.

The idea behind Alembert is that if you place three hundred bets a night (about 3 to 4 hours' worth in the case of craps, the fastest game), and they work out to be about a 50–50 split between wins and losses (which they generally will be over the long-term average if you learn to be invisible), then you have generated a hundred and fifty additional dollars, wealth that wasn't there before but came into being because of your evening's trading activity. You weren't placing bets, you were buying and selling shares of a company called Pass Line, Inc., on a new kind of stock exchange known as the Craps Table Stock Exchange. Nor does it matter if the wins or losses alternate or if you get long runs of one or the other. It all works out the same. The only requirement is that the wins and losses average out roughly 50–50, which they inevitably do over a long enough period of time. Let's take a look at an example.

Mathematical Analysis

Table 4.1
An Alembert Progression

Bet No.	Amount	Decision	Total Out	Total In	Profit
1	$11	L	$11		–$11
2	12	L	23		–23
3	13	L	36		–36
4	14	W	50	$28	–22
5	13	L	63		–35
6	14	L	77		–49
7	15	W	92	58	–34
8	14	W	106	86	–20
9	13	L	119		–33
10	14	W	133	114	–19

Bet No.	Amount	Decision	Total Out	Total In	Profit
11	13	W	146	140	−6
12	12	L	158		−18
13	13	W	171	166	−5
14	$12	W	$183	$190	$7
(15)	(11)				

Table 4.1 is an account of an actual game of Alembert I played in one of the carpet joints in Atlantic City. I started with a bet of $11 and immediately hit a losing streak, losing five of my first six bets. At its worst, I was $49 in the hole, and yet look what happened. Out of fourteen bets overall, I won seven, lost seven, and ended up with a net profit of precisely $7, or one-half unit per bet. I won and lost the same number of bets, yet ended up with a clear, solid profit. Moreover, it would all have worked out exactly the same even if the wins and losses had all been reversed. Look at table 4.2, please.

Table 4.2
A Mirror Image of Table 4.1

Bet No.	Amount	Decision	Total Out	Total In	Profit
1	$11	W	$11	$22	$11
2	10	W	21	42	21
3	9	W	30	60	30
4	8	L	38		22
5	9	W	47	78	31
6	8	W	55	94	39
7	7	L	62		32
8	8	L	70		24
9	9	W	79	112	33
10	8	L	87		25
11	9	L	96		16
12	10	W	106	$132	26
13	9	L	115		17
14	$10	L	$125		$7

This is a purely hypothetical Alembert game, exactly the opposite of the real-life game in table 4.1, devised purely to illustrate that I would have won exactly the same $7 even if I had lost all the bets I actually won and won all the bets I actually lost. If you look at it as a balance sheet, table 4.2 seems to be a much more successful game than table 4.1 because the severe losing streak at the beginning of table 4.1 becomes a fabulous winning streak at the beginning of table 4.2. And yet they both finish the same, with a profit of one-half unit per bet.

Alembert looks like a great system up close, and it is, one of the best of the traditional systems, but unfortunately it has two very serious problems.

The immediate problem is that you must have enough capital on hand to be able to bankroll a bad losing streak. Theory says it doesn't matter even if you lose so much that your bets eventually rise as high as a hundred units or more. Sooner or later your luck will change, and when it does you'll be winning a hundred units or more per bet, all the way back down the scale to where you started from, and in the end you'll net one unit for every two bets placed. The problem is bankrolling such a progression, assuming you get one so ghastly, and you could. People do. Running your bets up from eleven units all the way to a hundred units is going to cost you somewhere in the neighborhood of five thousand units, or $5,000 if you use $1 betting units. Which brings us early on to one of the cardinal principles of all mathematical gambling systems: *keep your betting units small.* We touched on this earlier, but now you must consider it earnestly. It's bad enough to have to live with the possibility of a crooked house gunning for you with their possibly-wired tables, but don't go making it worse by mismanaging your capital. Increase and decrease by $1 increments only, not $2, $3, or $5 increments. Otherwise the amount of capital required will break you the very first time you hit a serious losing streak. This *apart* from the possibility of the tables being rigged.

Consider this: the cold, raw mathematics of the Law of Probability is that once a week or so, on average, you're going to hit a losing streak of nine in a row. *Even if they're not juicing the tables on you.* Every two weeks, ten in a row. Once a year, on average, you're going to have to eat *fifteen* in a row, *even if you're 100 percent successful in staying invisible.* All this can float the amounts of your bets up into the stratosphere absolutely effortlessly, and heaven help you if you started with too large a betting unit, so be realistic.

Now what about Half Peak? Where does this mathematical device Half Peak come in?

As you may recall, I said Alembert had *two* very serious problems. Having enough capital was only one of them. The other problem is *drift*, another honest mathematical phenomenon that stems from the fact that over the long run the house is always going to win a tiny bit more often than you. It has nothing to do with a crooked house cheating you in this case. Drift will happen in an honest casino. It's just in the nature of any game where the house has that built-in mathematical edge.

According to probability theory, a casino wins 507 out of every 1,000 bets and you win 493, on average. This in itself would be no problem: the one unit profit from every two bets can easily cover the cost of these 14 losses in a hypothetical run of 1,000 bets which produces a hypothetical $500 of profit. But because the house always wins a tiny bit more often than you do, even at an honest table, your losing streaks are always going to be a tiny bit longer than your winning streaks, which means the amounts of your bets will tend inevitably to get higher and higher as the tide of luck ebbs and flows. Thus if you were to open a game of Alembert with a bet of 50 units, in the first hour your bets might work their way up and down to, say, a high of 60 and a low of 40, but in the second hour they would have a disturbing tendency to be something more like 64 and 44. And in the third hour they could be even higher than that. After a few days you'd find your bets averaging

around a hundred or so, and fifty would be a number you'd be lucky to see, if ever.

Obviously your progression has to have some way to correct for drift or you find yourself betting hundreds of units on every bet and see all your profits absorbed in financing these enormous bets, not to mention how obvious it would be to the house, and what it would do to your all-important invisibility.

The way to correct is to end your Alembert progression at *Half* your *Peak* when a winning streak finally carries you that far back down the scale, then start all over again with a brand-new game.

Now as a practical matter you aren't going to open a game of Half Peak with a bet of $50 because a hairy losing streak early on could send your bets up to $80 or $90 very quickly and soak up thousands of dollars of your capital, and you would have no guarantee that another hairy losing streak wasn't just around the corner. Double whammies like that could clean out the Emir of Kuwait, *and these things do happen*. A more reasonable game would begin with a bet of, say, $10 or $12, depending on what the house minimum is. You want to be at least seven units above the house minimum in order to be able to store up your good luck if it comes early on. A typical minimum is $5. If you shop around you might be able to find a minimum of $3, especially in the weekday mornings and afternoons when traffic is light, but beware of going to the casinos when traffic is light. Invisibility requires you to get lost in a crowd, remember, so always take care never to go to the tables except when it's as crowded as Times Square on New Year's Eve. Remember—once they get to know your face, you're no longer invisible.

So you begin your game of Half Peak on a bet of $10. By and by drift will carry your progression up to a peak which is more than double your opening bet. If you're lucky enough to work your way back down to half that peak, whatever it is, you quit and start a new game at $10.

For example, if you work your way up to a peak of $30, then half peak is $15; you quit as soon as you work your way back

down to $15 and no further—game over, victory claimed. Then you start a fresh game at $10. You've corrected for drift by jumping $5 down the scale, from $15 to $10, a minor loss that you cheerfully accept as part of the cost of doing business, knowing it has saved you from the mathematical gangrene of drift.

Whatever your peak turns out to be, you quit as soon as you work your way back down to half of it. Even if bad luck carries your progression as high as $50, you quit as soon as you get back down to $25, then start a fresh game at $10. But you should get back down to half peak again sooner or later. You practically always will on your kitchen table.

And that's it. That's how Half Peak is played. Your first system. And it works. And how. Wait'll you try it on your kitchen table. You're not gonna believe it even after you've seen it with your own eyes.

The bets for playing Half Peak at craps are called the "Pass Line" and the "Don't Pass" line. They're there in fig. 4.1, the Craps Layout, the pair of parallel stripes running along the length of both edges of the green felt and curving up both ends of the table. They're the even-money bets, the ones you play Half Peak with. Think of these two bets as your introduction to the Craps Layout. If you place your chips on the Pass Line, you're betting on the shooter to win. If you place your chips on the Don't Pass line, you're betting him to lose. Either way it's a 1-to-1 payoff. If, for example, you bet $5 and win, the dealer gives you back your $5 plus $5 from the house. If you lose, the house keeps your $5. That's all. (The actual rules of craps, for future reference, are as follows: a first throw of 7 or 11 wins, a first throw of 2, 3 or 12 loses, and a first throw of 4, 5, 6, 8, 9 or 10 can be won only by repeating the number thrown before a seven appears.)

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